

The Gap Between the Supply and Demand for Postsecondary Workforce Education



November 2002



Workforce Training and Education Coordinating Board
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WORKFORCE TRAINING AND EDUCATION COORDINATING BOARD

The Vision

The Workforce Training and Education Coordinating Board is Washington State's valued and trusted source of leadership for the workforce development system.

Mission Statement

The Workforce Training and Education Coordinating Board's mission is to bring business, labor, and the public sector together to shape strategies to best meet the state and local workforce and employer needs of Washington in order to create and sustain a high-skill, high-wage economy.

To fulfill this Mission, Board members, with the support of staff, work together to:

- Advise the Governor and Legislature on workforce development policy.
- Promote an integrated system of workforce development that responds to the lifelong learning needs of the current and future workforce.
- Advocate for the nonbaccalaureate training and education needs of workers and employers.
- Facilitate innovations in workforce development policy and practices.
- Ensure system quality and accountability by evaluating results and supporting high standards and continuous improvement.

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Introduction

According to the Workforce Board's 2001 statewide survey of employers, 83 percent of firms that attempted to hire someone with a postsecondary vocational credential during the previous 12 months had difficulty finding qualified applicants. The scarcity of workers with postsecondary vocational training affected more firms than were affected by shortages of other workers. These workers are prepared through the state's community and technical college system, apprenticeship, and private career schools.

This paper addresses two questions. In order to close this gap, how many more new workers should Washington's community and technical colleges prepare? In order to prepare this number of new workers, since many students who enter college do not complete their training, how many more workforce¹ students should the colleges enroll? The paper focuses on workforce training that is more than one year and up to but less than four years of postsecondary training.²

¹ This paper uses the terms "vocational" and "workforce" interchangeably to refer to community and technical college programs that prepare students for jobs without transferring for a baccalaureate degree.

² While according to the employer survey there is also a shortage of qualified job applicants with shorter postsecondary training, there is insufficient data on the supply of such training from private sector vendors to reliably analyze the extent of the gap between demand and supply for short-term postsecondary training.

Demand

Based upon data from the Labor Market and Economic Analysis unit of the Employment Security Department, there was a demand for **30,300 workers** with more than one year and up to but less than four years of postsecondary education or training during the 1999-2000 school year.³

Supply

The supply of postsecondary training that is more than one year and up to but less than four years in length consists of community and technical colleges, private career schools, and apprenticeship programs. The supply includes students that complete a credential, and students that leave without a credential but that have completed at least a year of training. Figure 1 shows the number of new workers prepared by each of these three sectors, during the 1999-2000 school year.³

Gap between Supply and Demand

Given a demand for 30,300 new workers and a supply of 23,600, there was a **gap of 6,700 workers** during the 1999-2000 school year. In percentage terms, 78 percent of demand was met and 22 percent was not met.

Future Demand

By the 2009-2010 school year, demand for new workers is projected to be **35,400 workers** (based on the forecasts of economic growth).

Future Supply

If the supply of newly prepared workers keeps pace with the growth in the student-age population, by the 2009-2010 school year there will be a supply of **26,500 newly prepared workers**.

Future Gap Between Supply and Demand

By the 2009-2010 school year, the gap between supply and demand for new workers is projected to increase to a **gap of 8,900 workers** if the supply only keeps pace with the growth in the student-age

FIGURE 1

1999-2000 Supply of Newly Prepared Workers	
Community and Technical Colleges	18,000
Private Career Schools	4,100
Apprenticeships	1,500
<hr/>	
Total Supply	23,600

³ The number of job openings was slightly larger, but since some individuals hold more than one job, the United States Bureau of Labor Statistics suggests that the number of individuals needed is 90 percent of the number of job openings.

⁴ The supply numbers are reduced by the labor force participation rates to reflect the fact that not all newly prepared workers actually enter the labor market.

population (see Figure 2). The reason that the gap will increase is that the student-age population will not grow as rapidly in the future as it has in the past. In order to prevent the gap from increasing, the percentage of the student age population that completes workforce education (the participation rate) will have to increase.

How Many More Students are Needed?

Given a gap of 8,900 workers between supply and demand by the 2009-2010 school year, how many more workforce education students are needed to close the gap (in addition to growth to match the growth in the student-age population)? The answer is far more than 8,900 students. Since many students leave school early or take remedial classes, it takes 3.02 Full-Time Equivalent (FTE) Students to produce one newly prepared worker.

Figure 3 shows the number of additional student FTEs that are required each year in workforce education between the 1999-2000 school year and 2009-2010 under different scenarios. The numbers include both the growth necessary to match demographic growth, and growth beyond that to close the gap. As the table shows, the number of FTEs required can be reduced either by setting a goal of closing less than 100 percent of the gap, or by increasing the efficiency with which student FTEs are prepared as new workers.

It should be noted that the table shows the number of community and technical college workforce education student FTEs

FIGURE 2

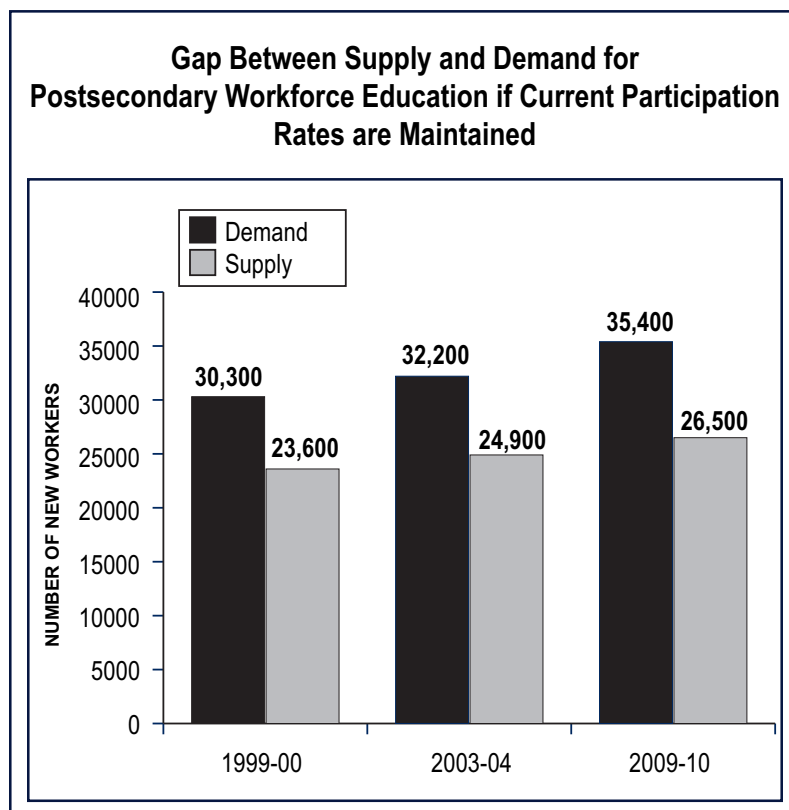


FIGURE 3

Annual Workforce Student FTE Increases Required to Close the Gap Under Different Assumptions		
Percent of Gap Closed by 2009-2010	Extent of Efficiency Gain (percent reduction in FTE/Worker ratio)	
	NONE	10 PERCENT
100 percent	2,700 Student FTEs	2,000 Student FTEs
75 percent	1,900	1,400
50 percent	1,200	700

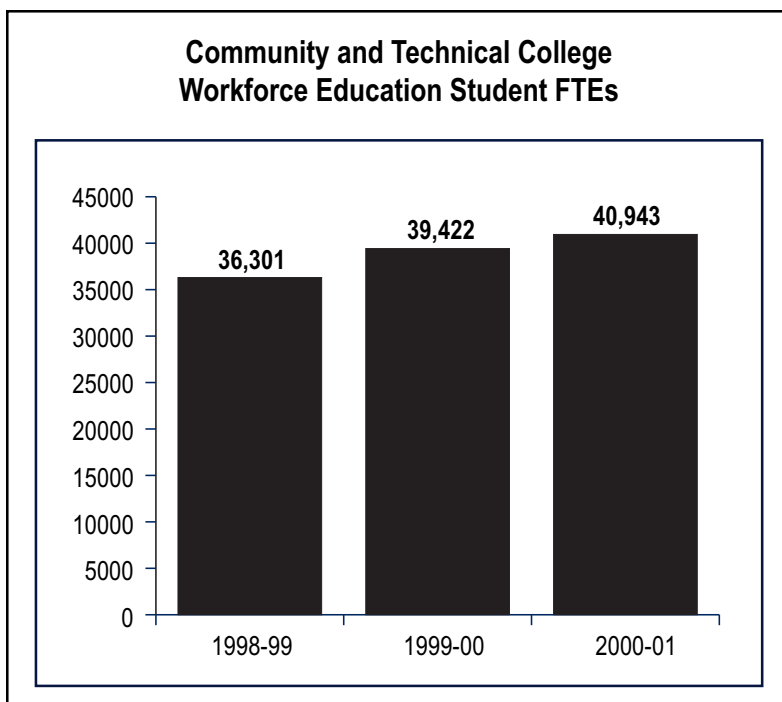
that are required. Only about half of student FTEs at the community and technical colleges are in workforce education. The remainder are in adult basic skills education and academic programs preparing for transfer to baccalaureate institutions. Budget enhancements for the community and technical colleges, unless earmarked for workforce education such as line item funding for the Worker Retraining Program, would have to fund about twice as many student FTEs as shown in the table.

Can this be Achieved?

In recent years, the community and technical colleges have substantially increased their student FTEs in workforce education programs. The size of the increases, as shown in Figure 4, has been in the mid to upper range of what is needed to close the gap by 2009-2010. Between the 1998-99 school year and 1999-2000, 3,121 student FTEs were added in workforce education. And, between 1999-00 and 2000-01, 1,521 student FTEs were added. In addition, during the past two years, the student FTE/worker ratio has decreased from 3.23 to 3.02, marking gains in efficiency. Such improvements in recent years have caused the ratio of supply to demand to increase from 75 percent to 78 percent.

Given budgetary pressures, however, the State will be hard pressed to maintain the recent level of increase in student FTEs during the coming biennium and beyond.

FIGURE 4



The Gap Between the Supply and Demand for Postsecondary Workforce Education Customer Satisfaction Survey

The Workforce Training and Education Coordinating Board is committed to high-quality customer satisfaction and continuous improvement. You can help us meet our commitment by completing this form, detaching it, and mailing it in. Please circle the words that best answer the following questions. In the spaces provided, please elaborate on your response.

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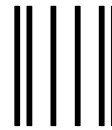
Does your organization provide training services to clients? Yes ____ No ____

Would you like to be contacted about future WTECB initiatives in this field? Yes ____ No ____

If we have any questions about what you have written here, may we contact you? Yes ____ No ____
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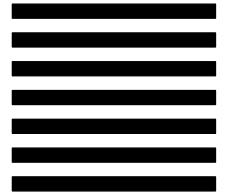
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